



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/866,336	05/25/2001	Patrick McWilliams	SSD-0041B	4859
29116	7590	05/17/2005	EXAMINER	
ROBINSON & POST, L.L.P. 1117 HAMPSHIRE LANE RICHARDSON, TX 75080			EMDADI, KAMRAN	
			ART UNIT	PAPER NUMBER
			2667	

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/866,336	Applicant(s) MCWILLIAMS, PATRICK	
	Examiner Kamran Emdadi	Art Unit 2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-46 and 48-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 and 48-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10-1-01</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 47 is objected to because it does not exist in the series of claims 1-54. The currently pending claims include 1-46 and 58-54 only total 53 claims. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1,

Line 4 should read "the first bridge being connected [to the second bridge]".

Lines 6 and 9 contain a misspelling word "program[m]ed".

Line 7 should read "the second bridge being connected [to the first bridge] according to *the* [an] established protocol".

Lines 6-7 contain an indefinite statement: "the first bridge...program[m]ed to represent the second device layer to the first device layer". It is unclear to the Examiner how or what the first bridge is programmed to do in its representation of the second device layer to the first device layer. In other words, how does a bridge represent a

Art Unit: 2667

second device layer to a first device layer? In addition, lines 8-9 contain a similar indefinite statement.

Regarding claim 15, for substantially similar reasons as set forth above with regard to claim 1, claim 15 is also rejected as being indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Heikkinen et al. (U.S. Patent No. 6,621,794).

Regarding claims 1 and 15, Heikkinen teaches a method for determining the time difference between physical IMA (ATM) links. The method includes an ATM layer and a PHY layer, where the ATM layer 110 is coupled to a PHY layer device 122, which is coupled to another PHY layer device 136 via a physical link 114 (see figure 1). The first device layer has an established ATM protocol and cells are passed transparently through the ATM layer, and the PHY layer devices are transparent to the ATM layer (see column 5, lines 35-40).

Regarding claims 2 and 16, Heikkinen teaches a protocol interface for the PHY devices that operates as a first and second layer protocol interface for IMA protocol data and PHY to PHY exchange of data (see 210 and 212 of figure 2 and column 5, lines 8-15).

Regarding claims 3 and 17, Heikkinen teaches a plurality of modes of operation for the protocol interface (see 220, 222 and 224 of figure 2).

Regarding claims 4 and 18, Heikkinen teaches the second PHY device having a plurality of second device layers (see 220, 222 and 224 of figure 2).

Regarding claims 5 and 10, Heikkinen teaches up and down directions for the PHY devices (see 322 of figure 3) and transport container processing (see user plane functions 220 of figure 2).

Regarding claims 6, 11, 35 Heikkinen teaches avoiding overflow and using bit stuffing control data (see 460 of figure 4 and 590 of figure 5).

Regarding claims 7-8, 12-13, 21-22, 36, 38 Heikkinen teaches assembling error code and alarm code into the transport containers (see 222 of figure 2).

Regarding claims 9, 14, 23-24, 39-41 Heikkinen teaches HEC parity code information (see 222 of figure 2).

Regarding claims 19 and 34, Heikkinen teaches converting a cell to a container and transmitting over a serial link (see figure 5).

Regarding claim 20, 37 Heikkinen teaches a frame with cells (column 6, line 30).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25-33 and 42-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heikkinen in view of Ganmukhi et al. (U.S. Patent No. 6,192,046).

The teachings of Heikkinen include those features present in claims 30-32, 45-46 and 48-49 (see above rejections to claims 6-7 and 9). In addition, Heikkinen teaches all of the above described features except for a plurality of blocks with a plurality of transport containers including a control byte, a bit interleaved parity code embedded in the parity information, and a sub-port connected to a port.

Ganmukhi discloses an ATM network device that is designed to provide efficient data transfer of ATM cells across a backplane. The teachings of Ganmukhi include a plurality of blocks containing bytes including control information or a control byte 1 (see figure 17). Ganmukhi also discloses a bit interleaving operation used to control the flow of data (see column 6, lines 20-30), a backpressure control feature in the control byte information (see figure 15) and subports (see column 16, lines 43-44).

Evidence of motivation to combine the teachings of Heikkinen with those of Ganmukhi is present in the background portions of the specifications for these respective references. For instance, Heikkinen discloses the desire to provide accurate timing measurements for ATM data networking traffic (see column 2, lines 45-53).

Art Unit: 2667

Similarly, Ganmukhi discloses the need for efficient data traffic operations on an ATM network (see column 2, lines 50-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined these two patents to arrive at the features present in claims 25-29, 33, 42-44 and 48-52.

Claims 53-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heikkinen in view of Ganmukhi and further in view of Allan et al. (U.S. Patent No. 5,946,313).

The combined teachings of Heikkinen and Ganmukhi do not disclose a CRC parity check code and frame synchronization. Allan discloses an ATM multiplexing system that includes AAL5 frames for ATM cells that utilizes synchronization for data transmissions. The system includes using a CRC code to establish redundancy of encapsulated ATM cell information (see column 9, line 14).

Allan discloses the need to integrate Ethernet and ATM data networking operations into a common frame that includes multiplexing ATM data similar to the operations in Heikkinen and Ganmukhi. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined these three patents to arrive at the features present in claims 53-54.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kamran Emdadi whose telephone number is 571-272-6047. The examiner can normally be reached M-F between the hours of 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kamran Emdadi

May 12, 2005


CHI PHAM
SUPERVISORY PATENT EXAMINE
TECHNOLOGY CENTER 2600 5/12/05